

REMARKS

This is in response to the Office Action dated February 10, 2009. Claims 1 and 3-19 are pending and stand rejected in the outstanding Office Action. Claims 1, 14 and 19 have been amended.

The rejection of claims 1, 14 and 19 under 35 U.S.C. §103(a), as allegedly being unpatentable over Ishikawa et al. (US 5,509,973), is respectfully traversed.

Amended claims 1, 14 and 19 now recite “when the edge face sealing member is captured by a groove of the frame body, the edge sealing member is deformed in parallel fashion with respect to the inside surface of the groove, the upper sealing region and the lower sealing region being squashed and coming in intimate contact with the front surface and the back surface of the solar cell module body, respectively, the side sealing region coming in intimate contact with the edge face of the solar cell module body, so that the edge face of the solar cell module body is completely sealed by the edge face sealing member”. Support for the amendment can be found, for example, in Fig. 3 and paragraphs [0047]-[0048] of the instant specification. Ishikawa fails to disclose or suggest this feature.

Ishikawa discloses a support frame for solar batteries used in roof panels. The support frame includes a solar battery 4 (see Fig. 3), which is supported by grading channel members 5 detachably fitted on the four edges of the solar battery 4. A frame 3 is detachably mounted around the grading channel members 5 and consists of four frame members, i.e., an upper and lower frame member 6 and 7 and a pair of vertical frame members 8 (col. 4, lines 13-21). Each grading channel member 5 is a channel-shaped member into which an edge of the solar battery 4 is fitted. It has a substantially flat inner wall portion 9, side wall portions 10 and a head portion 11, and a pair of tongue portions integrally extending from the inner surfaces of the side wall

portions 10 toward each other (col. 4, lines 22-32). Also, the inner wall portion 9 has ribs 9a extending slightly outward relative to the side wall portions 10 (Fig. 2). When the solar battery is fitted into the channel members 5, the surfaces of the inner wall portion 9 are held against and in close contact with the edge of the solar battery 4. In addition, the tongues 12 are elastically deformed by the inserted edge of the solar battery 4, and their edges are in close contact with the solar battery edge (col. 4, lines 44-54).

The Examiner asserted that Ishikawa discloses all the limitations of claims 1, 14 and 19. Moreover, the Examiner stated that “Ishikawa also shows there is substantially no gap between the upper and lower sealing regions of the edge face sealing member (or the upper and lower side wall portion of the grading channel member 5) and the solar cell body 4, as seen in Figs. 6-7”.

Figs. 6-7 of Ishikawa show the outline structure of the edge face sealing member 5 of Fig. 2. However, as Fig. 3 shows in better clarity, it does not appear that the structure of the upper and lower frame members 6 and 7 is such that when the solar cell with its edge face sealing members is captured within the frame, the upper sealing region and the lower sealing region of the edge face sealing member are being squashed and coming in intimate contact with the front surface and the back surface of the solar cell module body, respectively, so that the edge face of the solar cell module body is completely sealed by the edge face sealing member. Figs. 2 and 3 show the state of the solar cell in the assembled (i.e., final) state and it is clearly seen that there are gaps between the solar cell and the upper and lower sealing regions of the sealing members 5. The section in Ishikawa cited by the Examiner “the tongues 12 are elastically deformed by the inserted edge of the solar battery 4, and their edges are in close contact with the solar battery edge” states that it is the edges of the tongues 12 that are in close contact with the solar battery

edge, when the solar cell is inserted into the sealing members 5, not that the tongues become flattened out after the edge face sealing members are captured within the frame.

In contrast, in the claimed device, when the solar cell 4, captured within its sealing member 1 (see Fig. 3(a)), is inserted into the frame 54, then the tongues 11a and 12a of the edge sealing member are flattened out and there is substantially no gap between the edge sealing member 1 and the solar cell 4 (see Fig. 3(b)). This occurs because of the existence of members 54c and 54f of the frame. There are no such members in the frame of Ishikawa that would cause the flattening of the tongues 12.

In Ishikawa, the head portion 11 of each grading channel member 5 is inserted into the opening 18 of the inner wall 14 of the upper and lower frame members, and the upper and lower engagement projections 21 are engaged with the respective upper and lower engagement grooves 5b (col. 5, lines 3-9, 60-67 in Ishikawa). This structure does not cause flattening of the tongues 12.

For the above reasons, claims 1, 14 and 19 are allowable.

It is respectfully requested that the rejection of claims 3-13, 15-18, all dependent from claim 1 or 14, also be withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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